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WATER FACT SHEET

U.S. GEOLOGICAL SURVEY, DEPARTMENT OF THE INTERIOR

WATER-RESOURCES ACTIVITIES IN OHIO, 1988

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The Ohio District of the Water Resources Division, U.S. Geological Survey, provides information on Ohio's water resources for the overall benefit of the State and the Nation. An integral part of the Survey's mission is to conduct — on a continuing, systematic, and scientific basis — investigations of the Nation's land, mineral, and water resources, and to publish and disseminate the information needed to understand, to plan the use of, and to manage these resources. The activities of the Water Resources Division fall into eight broad categories:

- Collection of hydrologic data.
- Water-resources investigations and assessments.
- Basic and problem-oriented hydrologic and water-related research.
- Acquisition of information useful in predicting and delineating water-related natural hazards.
- Coordination of the activities of all Federal agencies in the acquisition of water data, and operation of water-information centers.
- Dissemination of data and the results of investigations.
- Provision of scientific and technical assistance in hydrologic studies.
- Administration of the State Water Resources Research Institute Program and the National Water Resources Research Grant Program.

The U.S. Geological Survey has been conducting water-resources investigations in Ohio for almost 90 years. During that time, volumes of data have been collected, and more than 150 reports have been published on various aspects of Ohio's water resources. Work of the Ohio District is performed by a District office in Columbus and a field office in New Philadelphia.

The District Chief is responsible for the overall operation and management of the District. A 49-person staff consisting of hydrologists, hydrologic technicians, and other administrative and technical personnel carries out diverse tasks in support of the District's varied program. Funds to support the work of the Ohio District are derived from three principal sources: Federal (U.S. Geological Survey), State and local cooperators, and other Federal agencies. The District presently has 23 State and local cooperators and seven Federal cooperators.

The District's present program, which consists of 23 active projects, emphasizes collection of hydrologic data, assessment of hydrologic effects of coal mining and reclamation, modeling of rainfall-runoff relations and processes, and assessment of ground-water systems.

Surface-water data were collected at 123 continuous-record stations and 120 miscellaneous sites and partial-record stations during the 1987 water year (October 1, 1986, through September 30, 1987). Ground-water levels were measured in 828 wells during the water year. Surface-water, ground-water, and water-quality data are published annually.

Fifteen projects initiated before Federal fiscal year 1988 (October 1, 1987, through September 30, 1988) and currently in progress are described in a previous report by Vince (1987). Eight additional projects in progress during fiscal year 1988 are described below; the project areas are shown in figure 1.

STATE AND LOCAL COOPERATIVE PROGRAM

A. Compilation, Evaluation and Analysis of Precipitation-Quality Data in Ohio and Adjacent Areas (Statewide)

Cooperator: Ohio Air Quality Development Authority

Purpose: Determine the geographic (areal) and seasonal (temporal) characteristics and trends in the chemical quality of wet deposition in Ohio and adjacent areas from data collected by several national and regional wet-deposition monitoring programs with sites in Ohio.

B. The Impact of Reduced Municipal-Effluent Discharge on the Hydrologic Interaction between Ground Water and Scioto River, Encompassing the City of Columbus Well Field, Southern Franklin County, Ohio

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Cooperator: City of Columbus

Purpose: Determine the effects of the proposed redesign of the Jackson Pike Sewage Treatment Plant to reduce effluent on the interaction between the river and ground water in the vicinity of the South Columbus well field.

C. Effects of Highway-Deicing Chemicals on Shallow Unconsolidated Aquifers in Ohio (Statewide)

Cooperator: Ohio Department of Transportation

Purpose: Determine, at eight selected sites in Ohio, the effects of highway-deicing chemicals on soils, unsaturated zones, and the quality of ground water in shallow, unconfined aquifers that underlie highways in Ohio.

D. Hydrogeology and Water Quality of the Major Aquifers in an Area of Deep-Well Brine-Disposal Systems, Shalersville and Adjacent Townships, Portage County, Ohio

Cooperators: City of Akron and Ohio Water Development Authority

Purpose: Describe the local geology, measure current water levels, describe ground-water flow and the hydrologic connection between the ground water and Lake Rockwell, document current ground-water quality in the Shalersville area, and provide data that will help to determine the effectiveness of current brine-injection practices in Ohio.

E. Hydrologic Impacts of Longwall Mining in Ohio

Cooperator: Ohio Department of Natural Resources, Division of Reclamation

Purpose: Determine and describe the impacts of longwall mining on streams and rivers in parts of Meigs and Vinton Counties, Ohio, where longwall mining is taking place, and compare the magnitude of stream discharge and chemical and biological quality of those streams with areas not undergoing longwall mining.

F. Lake Erie Tributary Loading

Cooperator: Ohio Department of Natural Resources, Division of Water

Purpose: Determine loads of sediment and phosphorus, and other selected chemicals in several major streams tributary to Lake Erie so that the Ohio Department of Natural Resources can measure the extent of compliance with the phorphorus-loading agreement between the U.S. and Canada in June 1983.

G. Bacteriological Quality of the Scioto and Olentangy Rivers in the Columbus Area, Ohio

Cooperator: City of Columbus

Purpose: Determine the bacteriological quality of the Scioto and Olentangy Rivers.

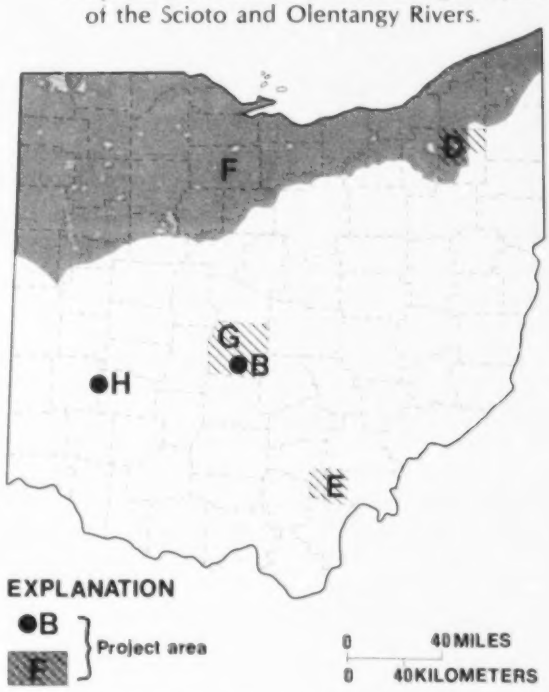

Figure 1.--Location of project areas.

OTHER FEDERAL AGENCY PROGRAM

H. Hydrogeology and Ground-Water Quality of Wright-Patterson Air Force Base, Southwestern Ohio

Cooperator: Wright-Patterson Air Force Base

Purpose: Collect and compile new and existing hydrologic data on the glacial outwash and bedrock aquifers of the base in order to assess regional hydrogeology and groundwater quality.

For aditional information on these projects or other activities of the Ohio District, please contact:

District Chief
Water Resources Division
U.S. Geological Survey
975 West Third Avenue
Columbus, Ohio 43212-3192
(614) 469-5553

REFERENCE CITED

Vince, C. C. (compiler), 1987, Current Water-Resources Activities in Ohio, 1987: U.S. Geological Survey Open-File Report 87-102, 61 p.

Open-File Report 88-196 Prepared by Linda D. Camp

GPO: 1988—550-275